

WHAT IS CLAIMED

1. A method for delivering interferon into an intradermal space within mammalian skin comprising administering the interferon through at least one small gauge hollow needle having an outlet with an exposed height between 0 and 1 mm, said outlet being inserted into the skin to a depth of between 0.3 mm and 2 mm, such that administration occurs at a depth between 0.3 mm and 2 mm.
2. The method of claim 1, wherein the delivery of interferon to the intradermal space produces improved pharmacokinetics compared to pharmacokinetics after subcutaneous injection.
3. The method of claim 2, wherein the improved pharmacokinetics is increased bioavailability, a decrease in T_{max} , an increase in C_{max} , a decrease in T_{lag} , or an enhanced absorption rate of interferon.
4. The method of claim 1, wherein interferon is administered through at least one small gauge needle.
5. The method of claim 1, wherein the needle has an outlet with an exposed height between 0 and 1mm.
6. The method of claim 1, wherein the delivery of interferon comprises inserting the needle to a depth which delivers the interferon at least about 0.3 mm and no more than about 2 mm.
7. The method of claim 1, wherein interferon is administered over a time period of not more than 10 minutes.
8. The method of claim 1, wherein interferon is administered over a time period greater than 10 minutes.
9. The method of claim 1, wherein interferon is administered at a rate between 1 nL/min and 200 mL/min.

10. The method of claim 1, wherein the needle(s) are inserted substantially perpendicularly to the skin.
11. A method of administering interferon comprising injecting or infusing the interferon intradermally through one or more microneedles having a length and an outlet, so that the interferon is selectively delivered into the dermis.
12. The method of claim 11, wherein administration of interferon into the dermis produces improved systemic pharmacokinetics compared to subcutaneous administration.
13. The method of claim 12, wherein the improved pharmacokinetics is increased bioavailability of interferon, a decrease in T_{\max} , an increase in C_{\max} , a decrease in T_{lag} , or an enhanced absorption rate of interferon.
14. The method of claim 11, wherein the length of the microneedle is from about 0.5 mm to about 1.7 mm.
15. The method of claim 11, wherein the microneedle is a 30 to 34 gauge needle.
16. The method of claim 11, wherein the microneedle has an outlet of from 0 to 1 mm.
17. The method of claim 11, wherein the microneedle is configured in a delivery device which positions the microneedle perpendicular to the skin.
18. The method of claim 11, wherein the microneedle is contained in an array of microneedles.
19. The method of claim 18, wherein the array comprises 3 microneedles.
20. The method of claim 18, wherein the array comprises 6 microneedles.
21. A method for delivering interferon to a subject comprising contacting the skin of the subject with a device having a dermal access means for accurately targeting the dermal space of the subject, wherein a clinically efficacious amount of interferon is delivered.